

JEFF ENGEL

Montana Building Industry Association  
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Attn: Dustin Stewart

3-1-10

Dustin,

We have completed the fire sprinkler data report for the Billings area. Initially, we had this report organized in a different format but we discovered we had some inaccurate information regarding building codes, smoke detectors, etc. The information used to formulate this report was obtained from The Billing Gazette, Billings Parmly Library and the Yellowstone County Treasurer web site. We also had discussions with Mike Hughes of Mike Hughes Builders of Helena who previously assembled a similar report. After talking with Mr. Hughes and discussing at length the format of his report for the Helena area we have structured our final report to focus on fires in structures built during or after 2004 when the 2003 edition of the IRC was adopted.

In the Billings area between January 1<sup>st</sup>, 2005 and December 31<sup>st</sup>, 2009 there were a total of 2,102 fires. Of the 2,102 fires we eliminated fires from our report that were not structure fires such as grass fires, shed fires, vehicle fires, trash fires, etc. This resulted in a net total of 788 structure fires including duplex and multi-family structures (some of which are not covered by the IRC). Of the 788 structure fires, 182 fires occurred in structures built after 1970, 42 fires occurred in structures built after 1990 and 17 fires took place in structures built during or after 2004 when the 2003 edition of the IRC was adopted by the City of Billings. In addition, we determined that 289 of the 2,102 fires reported included mis- information in the form of inadequate or inaccurate addresses, no date of construction and no determination of the cause of the fires. We assumed these fires most likely occurred in older structures when inadequate information was more likely to have been the case.

Of the 17 fires reported after 2003, all but one was of 'undetermined' origin. The lone fire with a determination was chalked up to 'fireworks'. No deaths were reported in any of the fires taking place in structures built during or after 2004. Less than 1% (.81% to be exact) of the 2,102 fires reported in this time period are fires that occurred in structures built during or after 2004.

The 2000 edition of the IRC was adopted by the State of Montana and Billings. This period of time was considered a 'transition' period and both the IRC and the CABO codes were utilized in the construction of 1 & 2 family structures. Prior to 2000, the One and Two Family CABO Code was utilized in the State of Montana and in Billings. The 2003 edition of the IRC was adopted in Billings in 2004 and was used exclusively from that point forward for One and Two Family structures. Currently we are under the control of the 2006 edition of the IRC and the 2009 edition should be adopted by the State of Montana in the very near future.



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Building codes have been in place in Billings since 1933; the current building code at that time was the 1930 edition of the UBC of Pacific Coast Building Officials. It amounted to a small pamphlet that fit in a shirt pocket and included about 30 pages. The 2009 edition of the IRC is a good sized catalogue and includes 868 pages. Hard-wired smoke detectors have been required in Billings since the late 70's when the requirement showed up in the 1979 edition of the UBC.

This report should serve as notice to all fire departments to start and maintain a public record-keeping system of fires that include accurate information including the date of the fire, type of fire and its cause, accurate address, value of damages and date the structure was constructed. And make this information easily accessible to anyone who may want to review it. This would be a tremendous help to our industry in an effort to accumulate accurate data regarding structure fires and the implementation of building codes going forward.

This report is not guaranteed to be 100% accurate. It is limited by the accuracy of the sources of the information utilized. Another thing we discovered is that the date of construction for a structure fire at times reflects the date of re-build, not the original construction date and could result in skewed numbers.

Call with any questions or comments.

Thank you,



Jeffrey T. Engel, Pres.



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